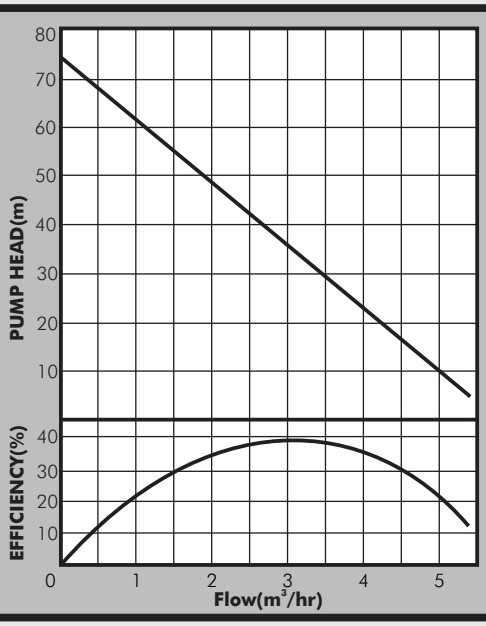
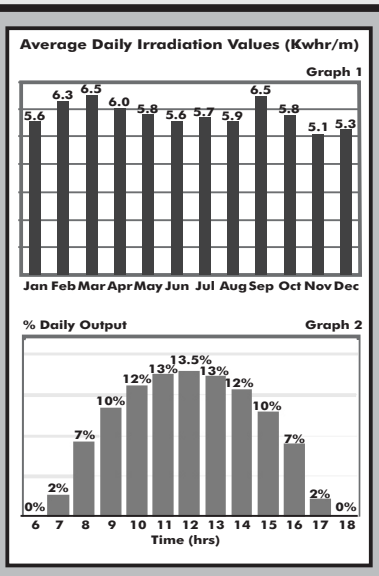
NEW PRODUCT

Impact Pumps

SOLARPLEX

DC Solar Surface Booster Pumps





PUMP

SolarPlex is a high specification, high pressure solar powered DC booster pump principally designed for general water supply applications. It is of 5 stage centrifugal design with hydraulic end and impellers being constructed from AISI 304 stainless steel and is engineered to the highest standards to give serviceability, excellent efficiency, reliability and durability.

MOTOR

The pump is fitted with an air cooled continuously rated high efficiency maintenance-free permanent magnet brushless DC (BLDC) motor with high quality bearings and in-built temperature sensor specifically designed for maximum efficiency and durability. It should be powered by a solar array configured to provide the input voltage required and sized at approximately 130% of the rated motor power.

Insulation Class: F ***Enclosure Class:*** IP56 ***Speed:*** 4000rpm

CONTROLLER

The pump-features an integral controller with simple direct PV connection for monitoring, control and protection with the following features:

- Automatic protection from overload, overtemperature, reverse polarity & locked rotor
- Fully automatic operation and complete protection including dry running and over/under voltage protection as well as tank full control
- Integrated MPPT (Maximum Power Point Tracking) with 99% energy conversion efficiency to maximize module power output, about +25% higher than conventional module controllers resulting in a similar increase in daily water output
- Enhanced pump start on low sun intensity for more water output
- Easy trouble shooting, with easy to read LED display for faults and problem solving

PUMP OUTPUTS

The performance curve is given at standard test conditions of 1000W/m^2 solar irradiance and 25^{0}C. Output will vary throughout the year depending upon prevailing irradiation levels. For estimated daily outputs at continuous pumping multiply the indicated output at the duty point by the daily irradiation given in Graph 1. For indicative purposes factors of 1.1 can be applied for hot arid areas and 0.9 for temperate high-altitude areas in the Tropics. Output will vary throughout the day as a proportion of the estimated hourly irradiation as shown in Graph 2.

OPERATING CONDITIONS

Pumped Liquid: Thin, clean, chemically non-aggressive liquids without solids or fibres
Maximum Liquid Temperature: +50^{0}C
Maximum Ambient Temperature: +50^{0}C

PUMP DATA

Model	Motor Power (W)	Rated Current (A)	Recommended MPP Voltage (Vmp)	Max Circuit Voltage (Voc)	PV Configuration	Inlet/ Outlet (")	Dimensions (mm)			Weight (Kgs)	
							L	W	H		
SOLARPLEX800	800	12	66-100	70-105	2 No. 545W Solar Modules (Series connection)	1	380	250	140	9